

Appl. No. 09/995,235
Amdt. dated August 18, 2004
Reply to Office Action of May 20, 2004

PATENT

REMARKS/ARGUMENTS

In the Office Action dated May 20, 2004, claims 1-41 were rejected. Applicant, by this paper, amends claims 1, 11, and 32 and adds new claim 42. Thus, claims 1-42 are pending in the application and are presented for reconsideration and allowance.

Discussion of Rejections Under 35 U.S.C. 103(a)

Claims 1-3, 5-6, 8-9, 11-13, 15-17, 19-20, 22-25, 27-28, 31-34, 36-37, and 39-40 were rejected under 35 U.S.C. 103(a) as allegedly unpatentable over U.S. Patent No. 5,784,695 to Upton et al. (hereinafter Upton) in view of U.S. Patent No. 5,432,819 to Mui.

In order to establish a prima facie case of obviousness, the prior art references must teach or suggest all claim limitations. There must be some suggestion or motivation to modify the reference or combine the reference teachings. Also, there must be a reasonable expectation of success in the combination or modification. Applicant respectfully traverses the rejections because the references, either alone or in combination, fail to teach or suggest all claim limitations, and there is no motivation to modify the references in a manner that provides for the missing claimed features.

Claim 1 requires "obtaining frequency estimation information from a first wireless signal received from a first carrier in a first communication system, and performing a handover to a second carrier in a second communication system." In contrast, Upton discusses handoff within a different satellites of a single communication system. Also, Mui discusses the operation of a frequency tracking loop within a single DPSK communication system. Thus, neither Upton nor Mui disclose a first communication system, and handing off to a second communication system distinct from the first communication system. Applicant respectfully requests reconsideration and allowance of claim 1 because the cited references, either alone or in combination, fail to teach or suggest every claimed feature.

Claims 11 and 32 include features similar to those discussed in relation to claim 1 and are believed to be allowable at least for the reasons provided above in relation to claim 1. Therefore, Applicant respectfully requests reconsideration and allowance of claims 11 and 32.

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Claim 22 includes "a first frequency tracking loop to obtain frequency estimation information relating to the first signal" and "a second frequency tracking loop to obtain frequency estimation information relating to the second signal *as a function of the frequency estimation information relating to the first signal.*" (*emphasis added*). The claimed features are not taught nor suggested in either Upton or Mui.

Upton does not disclose the use of a frequency tracking loop to obtain a frequency estimation relating to a first signal. The Examiner contends that it would have been obvious to use the frequency tracking loop discussed in Mui to perform this function. However, even assuming that there was some motivation to implement the frequency tracking loop of Mui into Upton, the combination of references fails to disclose a second frequency tracking loop that obtains frequency estimation information "*as a function of the frequency estimation information relating to the first signal.*"

Because Upton does not even discuss frequency tracking loops, it necessarily does not discuss how the information used in a second frequency tracking loop is obtained *as a function of the frequency estimation information relating to the first signal*. Mui does not disclose this claimed feature because Mui is only concerned with monitoring a DPSK signal from a single channel, and is not even concerned with multiple frequency tracking loops, much less the interrelationship between multiple frequency tracking loops. Applicant respectfully requests reconsideration and allowance of claim 22 because the cited references, either alone or in combination, fail to teach or suggest all claimed features.

Dependent claims 2-3, 5-6, 8-9, 12-13, 15-17, 19-20, 23-25, 27-28, 31, 33-34, 36-37, and 39-40 depend, either directly or indirectly from one of claims 1, 11, 22, or 32 and are believed to be allowable at least for the reason that they depend from an allowable base claim. Applicant respectfully requests reconsideration and allowance of claims 2-3, 5-6, 8-9, 12-13, 15-17, 19-20, 23-25, 27-28, 31, 33-34, 36-37, and 39-40.

Claims 4, 10, 14, 21, 29, 35, and 41 are rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Upton in view of Mui, and further in view of EP 1126637A2 to Joon. As discussed above, Upton and Mui, either alone or in combination, fail to disclose all features of independent claims 1, 11, 22, and 32. Joon fails to teach or suggest the claimed

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features absent from Upton and Mui and also provides no suggestion or motivation to modify any of the references to provide the missing features. Joon fails to discuss frequency estimation, and fails to discuss or suggest the use of a frequency estimation in a first signal at a first carrier in a second carrier of a second system. Therefore, claims 4, 10, 14, 21, 29, 35, and 41 which depend from one of claims 1, 11, 22, or 32 are believed to be allowable because the references fail to teach all of the features of the base claims. Applicant respectfully requests reconsideration and allowance of claims 4, 10, 14, 21, 29, 35, and 41.

Claims 7, 18, 26, 30, and 38 are rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Upton in view of Mui, in further view of U.S. Patent No. 5,432,819 to Zehavi, et al. (hereinafter Zehavi). As discussed above, Upton and Mui, either alone or in combination, fail to disclose all features of independent claims 1, 11, 22, and 32. Zehavi similarly fails to disclose the claimed features that are not taught nor suggested by Upton and Mui. Therefore, claims 7, 18, 26, 30, and 38, which depend from one of claims 1, 11, 22, or 32, are believed to be allowable because the references fail to teach all of the features of the base claims. Applicant respectfully requests reconsideration and allowance of claims 7, 18, 26, 30, and 38.

Discussion of New Claim 42

Newly added claim 42 includes "configuring a frequency tracking loop for receiving a second wireless signal operating at a second carrier based at least in part on the frequency error of the first wireless signal." The configuration of a second frequency tracking loop based on a frequency error of a first frequency tracking loop is not taught nor suggested by any of the cited references. Applicant respectfully requests allowance of claim 42.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

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If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 858-845-5235.

Respectfully submitted,



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